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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

SAIDHA, TEKCHAND

ART UNIT

PAPER NUMBER

1652

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

DETAILED ACTION

Election/Restrictions

1. Claims 1-19 filed on 9/29/2005 are pending in this application.
2. Restriction is required under 35 U.S.C. 121 and 372.
3. This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.
4. In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, drawn to a gene encoding carotenoid biosynthesis polypeptide consisting of nucleic sequences selected from sequences of SEQ ID Nos. **5, 7, 9, 11, 13 and 15**.

Group II, claim(s) 8, 10-17 drawn to all genes of claim 2, represented by SEQ ID Nos. **4**.

Group III, claim(s) 9, drawn to a protein encoded by the gene of claim 1 wherein the protein sequences are selected from a group consisting sequences of SEQ ID Nos. **6, 8, 10, 12, 14 & 16**.

Group IV, claim(s) 18-19, drawn to a *Paracoccus haeundaensis* producing astaxanthine, which has a 16S rDNA nucleotide sequence represented by SEQ. ID. No 3.

For each of inventions I or III above, restriction to one of the following is also required. Therefore, election is required of one of inventions I or III and one of inventions sequences listed in Group I or Group III.

Group I: Select one of the following DNA sequences- sequences of SEQ ID Nos. **5, 7, 9, 11, 13 and 15**.

Group II: Select one of the following protein sequences- sequences of SEQ ID Nos. **6, 8, 10, 12, 14 & 16**.

4. The inventions listed as Groups I-X and (A)-(L) do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical feature for the following reasons: The

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technical feature linking Groups I-IV appears to be that they all relate to sequences of SEQ ID Nos. **5, 7, 9, 11, 13** and **15**, encoding carotenoid biosynthesis polypeptide of SEQ ID Nos. **6, 8, 10, 12, 14 & 16**.

According to the international preliminary examination report [IPER] claims 1, 2 & 3 lack novelty as being anticipated by NCBI accession No. D58420 (28 August 2002); claims 1, 4-8, 10-17 lack novelty as being anticipated by NCBI accession No. Y15112 (15 September 1999); and claim 9 as being anticipated by NCBI accession Nos. BAA09591 (28 August 2002), CAB56060 (15 September 1999), BAA09593 (28 August 2002), CAB56062 (15 September 1999), CAB56063 (15 September 1999) and CAB56064 (15 September 1999).

Therefore, Groups I-IV and the sequences share no special technical feature as defined by PCT Rule 13.2, as it does not define a contribution over the prior art. Accordingly, Groups I-IV and various sequences are not so linked by the same or a corresponding special technical feature as to form a single general inventive concept.

5. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

6. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

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7. This application contains sequence disclosures that are encompassed by the definitions for nucleotide and/or amino acid sequences set forth in 37 CFR 1.821(a)(1) and (a)(2). However, this application fails to comply with the requirements of 37 CFR 1.821 through 1.825 for the reason(s) set forth on the attached Notice To Comply With Requirements For Patent Applications Containing Nucleotide Sequence And/Or Amino Acid Sequence Disclosures. Applicant must submit a CRF copy and paper copy of the Sequence Listing, a statement that the content of the paper and computer readable copies are the same and where applicable include no new matter as required by 37 C.F.R. j 1.821(e) or 1.821(9 or 1.821(g) or 1.825(d), as well as an amendment directing its entry into the specification.

Applicants' filed Computer Readable form(CRF) of the sequence listing is in error. A copy error report is provided.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am - 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nashaat Nashed can be reached on (571) 272 0934. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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